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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,356	06/29/2000	Yuri Smirnov	21113-04618	8906
51206	7590	02/08/2006		
TOWNSEND AND TOWNSEND AND CREW LLP TWO EMBARCADERO CENTER 8TH FLOOR SAN FRANCISCO, CA 94111-3834			EXAMINER STERRETT, JONATHAN G	
			ART UNIT 3623	PAPER NUMBER

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/608,356		SMIRNOV, YURI	
	Examiner		Art Unit	
	Jonathan G. Sterrett		3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35,39,40,50-110 and 114-133 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35,39,40,50-110 and 114-133 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This **Final Office Action** is responsive to applicant's amendment filed November 18, 2005. Currently **Claims 35, 39-40, 50-110, and 114-133** are pending.

Response to Amendments

2. The objection to the drawings and to Claim 71 are withdrawn.
3. The USC 112 2nd paragraph rejections regarding **Claims 35, 39, 40, 68, 70, 71, 76, 83, 85, 114, 117, 121, 123 and 128** (page 12 of last office action) are withdrawn.
4. The USC 112 2nd paragraph rejections regarding **Claims 39, 40, 121 and 123** (page 13 of last office action) are withdrawn.
5. The USC 112 2nd paragraph rejections regarding **Claims 39, 40, 121, 123 and 128** (page 13-14 of last office action) are withdrawn.
6. The USC 112 2nd paragraph rejections regarding **Claims 39, 40, 68, 98, 115, 118, 121, 123, 125 and 128** (page 15-16 of last office action) are withdrawn.
7. The USC 112 2nd paragraph rejections regarding **Claim 70** (page 16 of last office action) are withdrawn.
8. The USC 112 2nd paragraph rejections regarding **Claim 71** (page 16-17 of last office action) are withdrawn.
9. The USC 112 2nd paragraph rejections regarding **Claim 76** (page 17 of last office action) are withdrawn.
10. The USC 101 rejections of **Claims 35, 39, 40, 50-97, 114, 119-124 and 128-130** are withdrawn.

Response to Arguments

11. The applicant argues for Claim 35 that Kennedy does not teach the claimed limitation of receiving a response "during the configuration with the customer".

The examiner respectfully disagrees.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In this case Henson provides an online configuration of a product, selection of features, prices and availability dates and then confirming an order and 'checking out', i.e. transacting a purchase to transmit their order to Dell for processing. (By definition, Henson alone teaches a 'real time response' since the configuration system provides "response to input is fast enough to affect subsequent input". (See Rosenberg, Jerry M; "Dictionary of Computers, Information Processing & Telecommunications", John Wiley & Sons, 1987, p 516.) Henson distinguishes the current invention over prior online ordering systems in which responses to customer selections which affected availability of components selected to the extent that when orders did not show up as expected, customers would cancel their order. This was due to the customer selections having lead time implications when the customer orders were taken off

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the online system and entered into an order management system – see column 1 line 48-55. Henson's invention overcomes the deficiency of not providing a real time response during configuration because responses to input from the customer are "fast enough to affect subsequent input", per the definition of real time) Kennedy does not teach the online configuration with a customer but the allocation of ATP orders to fulfill customer requests. Kennedy teaches a network of supplier/manufacturer sites that are connected through a network of systems so that responsiveness up and down the supply chain to customer orders is done 'instantly', i.e. also meeting the limitation of real time. Kennedy teaches "when an actual customer request is received, one or more (or a portion of) promises made to forecast requests may be instantly reassigned to the customer request". ATP orders are forecast orders, that is, they are orders where manufacturing capacity is reserved in advance, so that the order can be immediately applied to a customer request, thus the moniker "Available to Promise". The ATP orders are instantly (i.e. in real time) applied to customer requests so that the customer can be informed in real time of a promised delivery date with confidence from the supply chain that the order delivery date can be fulfilled as promised. Whether the ATP orders are generated in advance according to a forecast is irrelevant to how the functionality of instantly applying those orders to customer requests anticipates the claimed limitations. Kennedy lacks configuration with the customer online, as taught by Henson. Henson notes that prior versions of the online configuration and purchasing of Dell products was unsuccessful because of lack of responsiveness in the system, which resulted in lost business.

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Kennedy notes that immediate responsiveness to the customer is unacceptable in today's business climate despite the fact that supply chains may be distributed. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the online configuration of product including selection of price, features and date availability, to include the distributed but responsive supply chain model of Kennedy, because it would provide an online configuration of a product that would provide immediate, real time response to customer selections during their configuration of the product to improve the online selling of the product. Both Henson and Kennedy are analogous art because they both address improving supply chain communication and responsiveness with the customer. One of ordinary skill would combine Henson and Kennedy with a reasonable expectation of success to meet the claim limitations.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. **Claim 35, 50-51, 55-56, 60, 68-74, 76-87, 91-92, 96, 98-99, 103-107, 109-110, 118-119 and 125-126, 131, 133** are rejected under 35 U.S.C. 103(a) as being unpatentable over Henson (U.S. Patent 6,167,383) in view of Kennedy (UK Patent Application GB 2,302,427 A). Henson discloses extended product configuration techniques comprising:

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- **[Claim 35]** receiving into a configuration engine of the seller a selected feature from the customer (col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches a web-based online store having a user interface for enabling a customer-operated custom configuration of a computer system that includes a configurator. The configurator is provided for configuring a computer system with options selected according to a prescribed user (i.e. customer) input.);
- updating an in-process bill of materials to reflect the selected feature and the availability date (col. 6, line 18-67, Henson teaches a customer of the online store can build a customer configured machine by selecting from options listed on the configuration screen. Upon obtaining a desired configuration, a customer could then select the "ADD TO CART" icon to add the configured system to the shopping cart. An on-line store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested. Online shoppers can click on the warning icon and receive a manually maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery. The Examiner interprets the process of configuring a machine to be the process of updating an in-process bill of material and that the shipment delay indication relates to the availability date of a selected feature that is maintained as part of the configured product.).

Henson fails to disclose communicating from the seller to a manufacturer the selected feature, receiving from the manufacturer over the Internet an automated response to the communicated selected feature, and wherein the availability date received from the manufacturer over the Internet is provided to or by a supply chain planning (SCP) system. Henson fails to teach where the communication with the manufacturer occurs when the customer is configuring their order with the seller. Henson teaches a web-based online store and an automated response including an availability date as indicated above. Kennedy teaches at

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least one seller model representing a seller that is selling at least one product, the seller model operable to forecast for the at least one product and operable to choose commitment levels creating forecast requests; the forecast requests receiving promises made by supplier sites; and the promises available to the seller entity to promise to actual customer requests. Kennedy teaches that communication can be real time between the seller and the manufacturer (page 6 line 10-15, the allocation of ATP orders is communicated back to the customer 'instantly'. Page 11 line 29-31, forecast requests are simultaneously adjusted down or up based on the customer request. The examiner interprets this to mean that selection of a product (and its associated features) is communicated instantly downstream so that ATP orders then are decreased by the amount of customer orders). Kennedy teaches where the manufacturer system is associated with a manufacturer of the selected feature, wherein the manufacturer is independent from the seller. The managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites (i.e. manufacturer, supplier and vendor sites that represent the upstream supply chain to the seller) having capacity and that manage material flow; and seller models that represent sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range

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of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network (p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4). Kennedy teaches that providing instant response to customer requests is necessary in today's business world (page 4 line 1-7). It would have been obvious to one of ordinary skill in the art at the time of the applicants invention to include the process of managing available-to-promise (ATP) and making promises to modify the configure to order approach for fulfilling customer requests taught by Henson, with the upstream instantaneous response through the supply chain to fulfill customer requests of Kennedy since Henson teach responsiveness (availability and speed) to customer requests (col. 3, lines 51-54). Being responsive to customer needs and then meeting commitments is a cornerstone for companies to maintain a strong customer base. Uncertainty leads to companies being non-responsive and missing their commitments. Eliminating the uncertainty, such as, communicating the customer's demands to all concerned, allows for companies to identify issues prior to making the commitment the customer will rely on. Kennedy teaches an entire distributed organization of suppliers and customers can be modeled along with the request

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and promises placed between them and with instantaneous adjustments in planning information when ATP orders become actual customer orders. In this way, planners can view, manage, and plan the activity of a whole network where the interfaces between elements must be formal (separate organizations) (p. 7, lines 17-23). Henson teaches the online store providing configure to order advantageously improves accuracy, reliability, and overall quality of an online buying experience. The online store is optimized for responsiveness (availability and speed) to customer requests and for completeness in servicing customer demand for personal computer related information (col. 3, lines 45-54). Therefore, with issues identified and/or eliminated, companies can be responsive to customer demands and meet their commitments.

- **[Claim 50]** repeating the steps of receiving into a configuration engine a selected feature, communicating to a manufacturer the selected feature, receiving from the manufacturer system an automated real-time response including an availability date, and updating a number of times until the configuration is complete thereby yielding a completed bill of materials (Henson: col. 6, line 18-67, Henson teaches a customer of the online store can build a customer configured machine by selecting from options listed on the configuration screen. Upon obtaining a desired configuration, a customer could then select the "ADD TO CART" icon to add the configured system to the shopping cart. An on-line store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested. Online shoppers can click on the warning icon and receive a manually maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery. The Examiner interprets the process of configuring a machine to be the process of updating an in-process bill of material and that the shipment delay indication relates to the availability date of a selected feature that is maintained as part of

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the configured product. Kennedy: p. 7, lines 17-23, Kennedy teaches an entire distributed organization of suppliers and customers can be modeled along with the request and promises placed between them and where customer requests result in real time communication (i.e. instantly) not only with the customer but also downstream as ATP orders are converted into real customer orders upon the receipt of actual customer orders. In this way, planners can view, manage, and plan the activity of a whole network where the interfaces between elements must be formal (separate organizations)).

- **[Claim 51]** communicating the selected feature to a vendor, wherein the manufacturer obtains materials from the vendor for the selected feature. (Kennedy: p. 7, lines 17-23, Kennedy teaches an entire distributed organization of suppliers and customers can be modeled along with the request and promises placed between them. In this way, planners can view, manage, and plan the activity of a whole network where the interfaces between elements must be formal (separate organizations)) Kennedy's supply chain of customers includes vendors and suppliers providing materials to manufacturers so that products are made and shipped to customers (i.e. material flow in the supply chain).
- **[Claim 55]** deriving, from the in-process bill of materials, an in-process manufacturing bill of materials that reflects the received availability date that corresponds to the selected feature (Henson: col. 6, line 18-67, Henson teaches a customer of the online store can build a customer configured machine by selecting from options listed on the configuration screen. Upon obtaining a desired configuration, a customer could then select the "ADD TO CART" icon to add the configured system to the shopping cart. An on-line store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested. Online shoppers can click on the warning icon and receive a manually maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery. The Examiner interprets the process of configuring a machine to be the process of updating an in-process bill of material and that the shipment delay indication relates to the availability date of a selected feature that is maintained as part of the configured product.).

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- **[Claim 56]** wherein the automated real-time response also includes a received price that corresponds to the selected feature (Henson: col. 2, line 61 through to col. 3, line 12, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented. Since the system taught by Henson is online, it provides the prices in real time).
- **[Claim 60]** a relationship between the customer and the seller has a configuration side associated with the customer, and a resource planning side associated with the seller, and the customer-seller relationship is respectively one of a consumer-seller relationship, a seller-supplier relationship and a supplier-vendor relationship (Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network. The Examiner interprets the above relationship is a seller-supplier relationship.).
- **[Claim 68]** receiving, from a customer, a selection of a feature of the product at a configuration engine of a seller of the product, the seller being a seller of the product to the customer (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches a web-based online store having a user interface for enabling a custom configuration of a computer system that includes a configurator. The configurator is provided for configuring a computer system with options selected according to a prescribed user input. Inherently, the on-line store application and system is of the seller of the product.);

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- communicating the received selection from the configuration engine to a supplier system of a supplier to the seller (Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.);
- the communication being during the configuration with the customer, wherein the supplier system is associated with a supplier of the selected feature, wherein the supplier is independent from the seller. Kennedy teaches the received selection being communicated downstream to suppliers instantly once the customer selection is made against ATP orders (page 11 line 29-31 and page 6 line 11-14). Kennedy teaches a supply chain network, where the supplier is an independent entity from the seller (page 5 line 13-24). Henson teaches configuration of a product with the customer, as discussed above.
- receiving into the configuration system from the supplier system an automated response to the communicated received selection, the automated real-time response including an availability date of the selected feature (Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the

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sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.); Henson teaches a configuration system for providing various product configurations to the customer (see Figure 3A and Figure 1 #18).

- the response being received during the configuration with the customer. Henson teaches that upon checkout (i.e. during configuration with the customer) a response is received including an availability date of the selected feature (See Figure 9, delivery options #120 which include availability date of the selected features of the product ordered).
- updating an in-process bill of materials based upon the availability date of the selected feature (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the configuration or in-process bill of material is updated.); and
- using the updated in-process bill of materials to determine a first availability date of the product, the first availability date of the product being based on at least the availability date of the selected feature (Henson: col. 6, lines 31-67, Henson teaches an on-lone store application which includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon is presented to the online shopper upon the selection of a system option that has been identified as

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having a significant impact on the time to delivery of the system of interest.); and

- providing the first availability date of the product to the customer (Henson: col. 6, lines 31-67, Henson teaches the online store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. Online shoppers can click on the warning icon and receive a manually-maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery.).
- **[Claim 69]** the automated real-time response is generated by a manufacturer of the selected feature (Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.). Kennedy teaches that the response can be communicated instantly back to the customer (i.e. in real time) – see page 6 line 11-13).
- **[Claim 70]** receiving, from a customer, a selection of a feature of the product at a configuration engine of a seller of the product (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches a web-based online store having a user interface for enabling a custom configuration of a computer system that includes a configurator (i.e. an engine). The configurator is provided for configuring a computer system with options selected according to a prescribed user input. Inherently, the on-line store application and system is of the seller of the product.);

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- communicating the received selection from the configuration application to a supplier system of a supplier to the seller (Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.);
- the communication being during the configuration with the customer, wherein the supplier system is associated with a supplier of the selected feature, wherein the supplier is independent from the seller. Kennedy teaches the received selection being communicated downstream to suppliers instantly once the customer selection is made against ATP orders (page 11 line 29-31 and page 6 line 11-14). Kennedy teaches a supply chain network, where the supplier is an independent entity from the seller (page 5 line 13-24). Henson teaches configuration of a product with the customer, as discussed above.
- receiving into the configuration engine from the supplier system an automated real-time response response to the communicated received selection, the automated real-time response including an availability date of the selected feature, the response being received during communication with the customer (Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments

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between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.). Kennedy also teaches real time communication when orders are moved from an ATP status to a promised status upon order receipt from the customer (page 6 line 11-13). Henson teaches a configuration engine, as discussed above, for providing a variety of configurations to the customer. Henson teaches responses being received during communication with the customer including an availability date of the selected feature (Figure 9 #120).

- updating an in-process bill of materials based upon the availability date of the selected feature (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the configuration or in-process bill of material is updated.); and
- using the updated in-process bill of materials to determine a first availability date of the product, the first availability date of the product being based on at least the availability date of the selected feature (Henson: col. 6, lines 31-67, Henson teaches an on-lone store application which includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon is presented to the online shopper upon the selection of a system option that has been identified as having a significant impact on the time to delivery of the system of interest.); and

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- providing the first availability date of the product to the customer (Henson: col. 6, lines 31-67, Henson teaches the online store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. Online shoppers can click on the warning icon and receive a manually-maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery.);
- **[Claim 71]** receiving, from a customer, a selection of a feature of the product at a configuration engine of a seller of the product (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches a web-based online store having a user interface for enabling a custom configuration of a computer system that includes a configurator (i.e. a configuration engine). The configurator is provided for configuring a computer system with options selected according to a prescribed user input. Inherently, the on-line store application and system is of the seller of the product.);
- communicating the received selection from the configuration engine to a supplier system (Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.);
- the communication being during the configuration with the customer, wherein the supplier system is associated with a supplier of the selected feature, wherein the supplier is independent from the seller.

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Kennedy teaches the received selection being communicated downstream to suppliers instantly once the customer selection is made against ATP orders (page 11 line 29-31 and page 6 line 11-14). Kennedy teaches a supply chain network, where the supplier is an independent entity from the seller (page 5 line 13-24). Henson teaches configuration of a product with the customer, as discussed above.

- receiving into the configuration engine from the supplier system an automated real-time response to the communicated received selection, the response being received during communication with the customer (Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.). Kennedy also teaches real time communication when orders are moved from an ATP status to a promised status upon order receipt from the customer (page 6 line 11-13). Henson teaches a configuration engine, as discussed above, for providing a variety of configurations to the customer. Henson teaches responses being received during communication with the customer including an availability date of the selected feature (Figure 9 #120).
- wherein the real-time automated response includes a plurality of availability dates, each of the plurality of availability dates associated with a different price of the selected feature (Henson: col. 6, lines 18-67, Henson teaches the pricing option module includes an update price function that causes the price displayed on the configuration screen to

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reflect any changes made to the system options. A shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. Online shoppers can click on a long lead-time icon that is displayed adjacent to each item affected and receive and estimated time to delivery. Kennedy: p. 4, lines 14-35, p. 5, lines 10-12 and 20-22, p. 6, lines 2-13, p. 7, line 25 to p. 8, line 20, Kennedy teaches the requesting facilities and the supplying facilities may be coupled by a computer network with at least one seller model representing a seller that is selling at least one product, the seller model operable to forecast for the at least one product and operable to choose commitment levels creating forecast requests; the forecast requests receiving promises made by supplier sites; and the promises available to the seller entity to promise to actual customer requests. A list of all matching products and associated available-to-promises can be displayed as available-to-promise for the request. In environments where customers are not willing to wait for a plan to be developed to get a promise, the supplying facility must create promises in advance that are available for immediate transfer to a customer. When an actual customer request is received, one or more (or portions of) promises made to forecast requests may be instantly reassigned to the customer request. Each sales entity defines the "products" it sells, where a product is an item priced based on the item, the quantity, the order lead time (time from accepting the order to the requested due date), and the customer. In this way, promises can be allocated for requests with particular characteristics. For example, one product may sell an item for \$5 if the order lead time is greater than 6 weeks. Another product may sell the same item for \$10 but with as short as 1 week lead time. Thus, a customer request with 6 week order lead time may be received when all allocations for that product have been consumed. However, if all the allocations for the 1 week order lead time product have not been consumed, the customer can be given the option. Such auto-maintenance of forecast requests can be very valuable in maintaining accurate forecasts and allocations for hundreds or thousands of products.) Kennedy teaches real-time (i.e. instantly) responses as discussed above.

- **[Claim 72]** the first availability date of the product, determined using the updated in-process bill of materials, is further based on an availability date of another selectable feature (Henson: col. 2, line 61 through to col. 3, line 12, col. 6, lines 31-67, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented. The online store application includes configuration, pricing, validation, shipment delay indication, and merchandising

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modules. Online shoppers can click on the warning icon and receive a manually maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery.).

- **[Claim 73]** receiving, at the configuration engine, a feature price that corresponds to the selected feature (Henson: col. 2, line 61 through to col. 3, line 12, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented). Note configurator (Figure 1 #18).
- **[Claim 74]** updating a product price responsive to the received feature price, and providing the updated product price to the customer (Henson: col. 6, lines 21-25, Henson teaches the pricing option module includes an update pricing function. The update price function causes the price displayed on the configuration screen to reflect any changes made to the system options).
- **[Claim 76]** receiving at a configuration engine a set of constraints defining a first set of valid configurations of a product, the product having at least a first selectable feature and a second selectable feature, the set of constraints being determined by a seller or a manufacturer (Henson: Figure 5, col. 2, lines 65-67, col. 6, lines 19-67, col. 9, lines 19-20 and col. 7, lines 57-66, Henson teaches a configurator is provided for configuring a computer system with options selected according to a user input. A customer of the online store can build a customer configured machine by selecting from options listed on the configuration screen. The "all option" configurator view is where all system selection options are shown at the same time. The online store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead time warnings or shipment delays, which would occur as a result of the selection of specific options. The online store includes validation of a configuration built by a customer. Validation (or compatibility) provides the customer with a validation message indicating an occurrence of when the options selected for a particular system are not correct. In other words, the validation enhancement lets the customer know when one or more options are not compatible for one reason or another.);
- receiving at the configuration engine a customer specified constraint, the customer specified constraint being received from a customer and being received using the computer network (Kennedy: p. 4, lines 14-16 and p. 6, lines 2-4, Kennedy teaches a system for managing available-

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to-promise and making promises to fulfill customer requests. The promises to meet the selected forecast orders may be transmitted directly to the customer over a computer network. The Examiner interprets constraint to be the customer requests.);

- receiving at the configuration engine a selection of the first selectable feature, the received selection being received from the customer and being received using the computer network (Henson: col. 2, lines 65-67 and col. 6, lines 19-21, Henson teaches a configurator is provided for configuring a computer system with options selected according to a user input. A customer of the online store can build a customer configured machine by selecting from options listed on the configuration screen.);
- communicating, from the configuration engine of the seller to the manufacturer, the selection of the first selectable feature, the communication being during a configuration of the product with the customer, wherein the manufacturer is independent from the seller; Henson teaches as discussed above, a configuration of the product that includes many selectable features (see Figure 3A for an example of a configuration screen for ordering a Dell PC). Kennedy teaches downstream communication of product ordering information, where the product ordering information occurs in real time as product orders are instantly apply to ATP orders which are orders available to be promised against incoming customer requests (page 6 line 11-13). Kennedy further teaches a distributed supply chain where the seller is independent of the manufacturer (page 7 line 1-7, line 17-23, examiner interprets the term 'distributed organization' to mean that the various entities, seller, supplier, manufacturer and vendor are distributed, i.e. independent. Figure 1 notes that these entities are independent in terms of being formed into a supply chain, where the final recipient of material flows resulting in products end with the customer).
- determining a second set of valid configurations of the product, the second set of valid configurations being a subset of the first set of valid configurations and being constrained by the customer specified constraint and the received selection (Kennedy: p. 4, lines 14-35, p. 5, lines 10-12 and 20-22, p. 6, lines 2-13, p. 7, line 25 to p. 8, line 20, Kennedy teaches the requesting facilities and the supplying facilities may be coupled by a computer network with at least one seller model representing a seller that is selling at least one product, the seller model operable to forecast for the at least one product and operable to choose commitment levels creating forecast requests; the forecast requests receiving promises make by supplier sites; and the promises available to the seller entity to promise to actual customer requests. A

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list of all matching products and associated available-to-promises can be displayed as available-to-promise for the request. In environments where customers are not willing to wait for a plan to be developed to get a promise, the supplying facility must create promises in advance that are available for immediate transfer to a customer. When an actual customer request is received, one or more (or portions of) promises made to forecast requests may be instantly reassigned to the customer request. Each sales entity defines the "products" it sells, where a product is an item priced based on the item, the quantity, the order lead time (time from accepting the order to the requested due date), and the customer. In this way, promises can be allocated for requests with particular characteristics. For example, one product may sell an item for \$5 if the order lead time is greater than 6 weeks. Another product may sell the same item for \$10 but with as short as 1 week lead time. Thus, a customer request with 6 week order lead time may be received when all allocations for that product have been consumed. However, if all the allocations for the 1 week order lead time product have not been consumed, the customer can be given the option. Such auto-maintenance of forecast requests can be very valuable in maintaining accurate forecasts and allocations for hundreds or thousands of products.);

- wherein the determination of the second set of valid configurations is a real time response to the selection of the first selectable feature. Kennedy, as discussed above, provides real time responses to customer orders. Henson teaches (column 8 line 7-11) where selection of a first selectable feature determines a second set of valid configurations. Henson teaches active validation of selected features (column 8 line 63-67 & column 9 line 4-7). (Since Henson's website is provided online to the customer, it also is providing a real time response (see discussion of active validation in column 8 line 63-67).)
- determining at least two possible configurations of the second selectable feature that satisfy the second set of valid configurations of the product (Kennedy: p. 4, lines 14-35, p. 5, lines 10-12 and 20-22, p. 6, lines 2-13, p. 7, line 25 to p. 8, line 20, Kennedy teaches the requesting facilities and the supplying facilities may be coupled by a computer network with at least one seller model representing a seller that is selling at least one product, the seller model operable to forecast for the at least one product and operable to choose commitment levels creating forecast requests; the forecast requests receiving promises make by supplier sites; and the promises available to the seller entity to promise to actual customer requests. A list of all matching products and associated available-to-promises can be displayed as available-to-promise for the request. In environments

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where customers are not willing to wait for a plan to be developed to get a promise, the supplying facility must create promises in advance that are available for immediate transfer to a customer. When an actual customer request is received, one or more (or portions of) promises made to forecast requests may be instantly reassigned to the customer request. Each sales entity defines the "products" it sells, where a product is an item priced based on the item, the quantity, the order lead time (time from accepting the order to the requested due date), and the customer. In this way, promises can be allocated for requests with particular characteristics. For example, one product may sell an item for \$5 if the order lead time is greater than 6 weeks. Another product may sell the same item for \$10 but with as short as 1 week lead time. Thus, a customer request with 6 week order lead time may be received when all allocations for that product have been consumed. However, if all the allocations for the 1 week order lead time product have not been consumed, the customer can be given the option. Such auto-maintenance of forecast requests can be very valuable in maintaining accurate forecasts and allocations for hundreds or thousands of products.); and

- providing to the customer from the configuration engine the determined at least two configurations of the second selectable feature, using the computer network (Kennedy: p. 4, lines 14-16 and p. 6, lines 2-4, Kennedy teaches a system for managing available-to-promise and making promises to fulfill customer requests. The promises to meet the selected forecast orders may be transmitted directly to the customer over a computer network.). Henson teaches providing to the customer at least two configurations of a number of selectable features, including at least a first and second (See column 9 line 4-7).
- **[Claim 77]** The customer specified constraint includes an availability date of the product (Kennedy: p. 7, line 25 to p. 8, line 20, Kennedy teaches a customer request with 6 week order lead time may be received when all allocations for that product have been consumed. However, if all the allocations for the 1 week order lead time product have not been consumed, the customer can be given the option.).
- **[Claim 78]** the customer specified constraint includes a price of the product or a feature price (Kennedy: p. 7, line 25 to p. 8, line 20, Kennedy teaches each sales entity defines the "products" it sells, where a product is an item priced based on the item, the quantity, the order lead time (time from accepting the order to the requested due date), and the customer. In this way, promises can be allocated for requests with particular characteristics. For example, one product may sell an item for \$5 if the order lead time is greater than 6 weeks.

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Another product may sell the same item for \$10 but with as short as 1 week lead time. Thus, a customer request with 6 week order lead time may be received when all allocations for that product have been consumed. However, if all the allocations for the 1 week order lead time product have not been consumed, the customer can be given the option.).

- **[Claim 79]** determining a feature price using the received selection and using the feature price to update a product price (Henson: col. 2, line 61 through to col. 3, line 12, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented.).
- **[Claim 80]** determining a feature availability date using the received selection, and using the feature availability date to determine a product availability date (Henson: Figure 5, col. 2, lines 65-67 and col. 6, lines 19-67, Henson teaches a configurator is provided for configuring a computer system with options selected according to a user input. A customer of the online store can build a customer configured machine by selecting from options listed on the configuration screen. The online store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead time warnings or shipment delays, which would occur as a result of the selection of specific options.).
- **[Claim 81]** determining at least two configurations of the second selectable feature that satisfy the second set of valid configurations includes identifying a third configuration of the second selectable feature that would be an invalid configuration due to the customer specified constraint (Henson: Figure 5, col. 2, lines 65-67, col. 6, lines 19-67, col. 9, lines 19-20 and col. 7, lines 57-66, Henson teaches a configurator is provided for configuring a computer system with options selected according to a user input. A customer of the online store can build a customer configured machine by selecting from options listed on the configuration screen. The "all option" configurator view is where all system selection options are shown at the same time. The online store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead time warnings or shipment delays, which would occur as a result of the selection of specific options. The online store includes validation of a configuration built by a customer. Validation (or compatibility) provides the customer with a validation message indicating an occurrence of when the options selected for a particular system are not correct. In other

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words, the validation enhancement lets the customer know when one or more options are not compatible for one reason or another. Kennedy: p. 4, lines 14-35, p. 5, lines 10-12 and 20-22, p. 6, lines 2-13, p. 7, line 25 to p. 8, line 20, Kennedy teaches the requesting facilities and the supplying facilities may be coupled by a computer network with at least one seller model representing a seller that is selling at least one product, the seller model operable to forecast for the at least one product and operable to choose commitment levels creating forecast requests; the forecast requests receiving promises make by supplier sites; and the promises available to the seller entity to promise to actual customer requests. A list of all matching products and associated available-to-promises can be displayed as available-to-promise for the request. In environments where customers are not willing to wait for a plan to be developed to get a promise, the supplying facility must create promises in advance that are available for immediate transfer to a customer. When an actual customer request is received, one or more (or portions of) promises made to forecast requests may be instantly reassigned to the customer request. Each sales entity defines the "products" it sells, where a product is an item priced based on the item, the quantity, the order lead time (time from accepting the order to the requested due date), and the customer. In this way, promises can be allocated for requests with particular characteristics. For example, one product may sell an item for \$5 if the order lead time is greater than 6 weeks. Another product may sell the same item for \$10 but with as short as 1 week lead time. Thus, a customer request with 6 week order lead time may be received when all allocations for that product have been consumed. However, if all the allocations for the 1 week order lead time product have not been consumed, the customer can be given the option. Such auto-maintenance of forecast requests can be very valuable in maintaining accurate forecasts and allocations for hundreds or thousands of products.).

- **[Claim 82]** receiving at the configuration engine a feature availability date from a supply system of a manufacturer (Kennedy: p. 4, lines 14-35, p. 5, lines 10-12 and 20-22, p. 6, lines 2-13, Kennedy teaches the requesting facilities and the supplying facilities may be coupled by a computer network with at least one seller model representing a seller that is selling at least one product, the seller model operable to forecast for the at least one product and operable to choose commitment levels creating forecast requests; the forecast requests receiving promises make by supplier sites; and the promises available to the seller entity to promise to actual customer requests. A list of all matching products and associated available-to-promises can be displayed as available-to-promise for the request. In environments

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where customers are not willing to wait for a plan to be developed to get a promise, the supplying facility must create promises in advance that are available for immediate transfer to a customer. When an actual customer request is received, one or more (or portions of) promises made to forecast requests may be instantly reassigned to the customer request.).

- **[Claim 83]** receiving, from a customer, a selection of a feature of the product, at a configuration engine of a seller of the product (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches a web-based online store having a user interface for enabling a custom configuration of a computer system that includes a configurator (i.e. engine). The configurator is provided for configuring a computer system with options selected according to a prescribed user input. Inherently, the on-line store application and system is of the seller of the product.);
- communicating the received selection from the configuration application to a supplier system of a manufacturer (Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.);
- the communication being during the configuration with the customer, wherein the supplier system is associated with a manufacturer of the selected feature, wherein the manufacturer is independent from the seller. Kennedy teaches the received selection being communicated downstream to suppliers instantly once the customer selection is

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made against ATP orders (page 11 line 29-31 and page 6 line 11-14). Kennedy teaches a supply chain network, where the suppliers, manufacturers and vendors are independent entities from the seller (page 5 line 13-24). The supply chain network of Kennedy includes a number of geographically independent entities, all connected together in a supply chain (see page 3 column 19-21). Henson teaches configuration of a product with the customer, as discussed above

- receiving into the configuration engine from the manufacturer an automated real-time response to the communicated received selection, the automated real-time response including an availability date of the selected feature or a price of the selected feature, the response being received during communication with the customer. (Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network. Kennedy teaches, as discussed above, providing an instant (i.e. real time) response to a customer placing an order.); Henson teaches a configuration engine used to provide an online selectable variety of product options to customers. Kennedy also teaches real time communication when orders are moved from an ATP status to a promised status upon order receipt from the customer (page 6 line 11-13). Henson teaches a configuration engine, as discussed above, for providing a variety of configurations to the customer. Henson teaches responses being received during communication with the customer including an availability date of the selected feature (Figure 9 #120).

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- updating an in-process bill of materials using the automated response (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the configuration or in-process bill of material is updated.);
- using the updated in-process bill of materials to determine an availability date of the product and a price of the product based on the received selection (Henson: col. 2, line 61 through to col. 3, line 12, col. 6, lines 31-67, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented. The online store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. Online shoppers can click on the warning icon and receive a manually maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery.); and
- providing, to the customer, a determined first availability date of the product and a determined price of the product (Henson: col. 6, lines 31-67, Henson teaches the online store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. Online shoppers can click on the warning icon and receive a manually-maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery.);
- **[Claim 84]** communicating the received selection from the configuration system to the supplier system includes communicating using a network (Henson: col. 5, line 66 to col. 6, line 1, Henson teaches a customer can access the online store using any suitable computer equipment, via the Internet, which is a network).
- **[Claim 85]** receiving into a configuration engine of the seller a selected feature, from the customer (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches an online store application and system which includes a configuration module, i.e. engine. The web-based online store has a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input.);

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- communicating from the seller to a manufacturer system the selected feature (Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. This communication is electronic and between systems of the various nodes in the supply chain. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.);
- the communication being during the configuration with the customer, wherein the manufacturer system is associated with a manufacturer of the selected feature, wherein the manufacturer is independent from the seller. Kennedy teaches the received selection being communicated downstream to suppliers instantly once the customer selection is made against ATP orders (page 11 line 29-31 and page 6 line 11-14). Kennedy teaches a supply chain network, where the suppliers, manufacturers and vendors are independent entities from the seller (page 5 line 13-24). The supply chain network of Kennedy includes a number of geographically independent entities, all connected together in a supply chain (see page 3 column 19-21). Henson teaches configuration of a product with the customer, as discussed above
- receiving into the configuration engine from the manufacturer system an automated real-time response including an availability date that corresponds to the selected feature, the response being received during the configuration with the customer (Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and

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that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.). Kennedy also teaches real time communication when orders are moved from an ATP status to a promised status upon order receipt from the customer (page 6 line 11-13). Henson teaches a configuration engine, as discussed above, for providing a variety of configurations to the customer. Henson teaches responses being received during communication with the customer including an availability date of the selected feature (Figure 9 #120);

- updating an in-process bill of materials to reflect that selected feature (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the in-process configuration or bill of material is updated.).
- **[Claim 98]** a configuration engine of a seller configured for receiving a selection of a feature of the product from a customer, the seller being a seller of the product to the customer (Henson: Figure 1, col. 2, lines 65-67, and col. 7, lines 57-66, Henson teaches a configurator (i.e. an engine) is provided for configuring a computer system with options selected according to a user input. The online store includes validation of a configuration built by a customer whereby a validation message is sent indicating an occurrence of when the options selected are not correct or will adversely affect the shipment.);

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- a communication module coupled to the configuration engine for communicating the selected feature from the seller to the supplier, and for receiving over the network an automated real-time response, including an availability date of the selected feature from the supplier to the configuration engine, the supplier being a supplier of the selected feature to the seller and being independent from the seller, wherein the communication and receiving occur during the configuration with the customer (Henson: Figure 1, col. 4, lines 53-62 and col. 6, lines 31-67, Henson teaches an enhanced online store user interface which enables the system configuration (via a configurator, i.e. an engine), pricing, and ordering of a computer system via the Internet. The online store has a shipment delay indicator that provides the customer with advance notice that a particular option will result in a shipment delay. The indicator may further include an indication of a certain amount of time for a delay with an estimated time to delivery. Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly (i.e. instantly and thus in real time) to the customers over a computer network.); Kennedy's system is automated since the receipt of customer orders against ATP results in an instant reply to the customer (see page 6 line 11-13). The supply chain network of Kennedy includes a number of geographically independent entities, all connected together in a supply chain (see page 3 column 19-21); Henson teaches responses being received during communication with the customer including an availability date of the selected feature (Figure 9 #120);.and
- a first storage area coupled to one of the configuration application and the communication module for storing an in-process bill of materials

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that reflects the selected feature (Henson: Figure 1, col. 3, lines 4-6, and col. 5, lines 9-13, and 57-58, Henson teaches the configurator, cart, and checkout are driven off the database. The cart provides temporary storage of the customer configured computer system.).

- **[Claim 104]** a second storage area coupled to one of the configuration engine and the communication module for storing an in-process manufacturing bill of materials that reflects the availability date of the selected product feature; and a third storage area coupled to one of the configuration engine and the communication module for storing an in-process pricing bill of materials that reflects a price of the selected product feature (Henson: Figure 1 and 11, col. 4, line 53 through to col. 5, line 5, and col. 6, lines 5-51, Henson teaches a hard disk drive and other storage devices all interconnected via one or more buses. The commerce application includes a configurator (i.e. a configuration engine) and database. The database provides information to the configurator which includes a pricing module, a view module, a lead time warning module, and a merchandising module.)
- **[Claim 105]** the communication module is also for communicating a price of the selected product feature from the supplier to the configuration engine (Henson: Figure 1, col. 2, line 61 through to col. 3, line 11, Henson teaches a commerce application where options selected by the user receive a price that is displayed on a configurator web page). As noted above, Henson teaches a configurator (i.e. a configuration engine).
- **[Claim 106]** an availability date communication module for communicating the availability date of the selected product feature from the supplier to the configuration engine (Henson: Figure 1, col. 6, lines 31-67, Henson teaches a lead time module with a shipment delay indicator that provides the customer with any lead time warnings or shipment delays associated with selection of specific options);
- and a price communication module for communicating the price of the selected product feature to the configuration engine (Henson: Figure 1, col. 2, line 61 through to col. 3, line 12, Henson teaches pricing module as part of a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented). As noted above, Henson teaches a configurator (i.e. a configuration engine).
- **[Claim 109]** a user interface coupled to the configuration engine for allowing the customer to interact with the system (Henson: Figure 11, col. 2, lines 61-67, Henson teaches a web-based online store having a

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user interface for enabling a custom configuration (i.e. through a configuration engine) of a computer system).

- **[Claim 110]** an inventory library coupled to the configuration engine for providing the customer a number of the configurable features that can be selected to configure the product (Henson: Figure 1, col. 3, lines 13-29, Henson teaches the configurator (i.e. the configuration engine) coupled to a database and includes merchandising recommendations for available options that are presented on the configurator web page. The examiner interprets the database to be the inventory library.).
- **[Claim 119]** the availability date received from the manufacturer system over the network is provided by an enterprise resource planning (ERP) system (Henson: col. 2, line 61 through to col. 3, line 12, and col. 6, lines 31-67, Henson teaches a web-based (i.e. internet and thus network-based) online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented. A shipment delay indicator provides the customer with any lead-time warnings or shipment delays associated with the selection of specific options and when the shopper clicks on the icon will receive an estimated time to delivery. Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises that are conveyed over the system connecting the sites; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. The Examiner interprets a supply chain model to be an enterprise resource planning (ERP) system).
- **[Claim 125]** an inventory library coupled to a configuration engine of a seller of the configurable product, the inventory library configured for providing the catalog of selectable features, the catalog of selectable features corresponding to a particular configurable product (Henson: col. 3, lines 8-16 and col. 5, lines 57-58, Henson teaches the database is provided for dynamically supplying configuration options to the configurator in accordance with the identification of the user belonging to the prescribed customer set. The configurator further includes merchandising recommendations for available options and their

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respective option details, the merchandizing recommendations being presented on the configurator web page. The entire configurator is being driven by the database.);

- a user interface coupled to the configuration engine using the network, the user interface for displaying the catalog of selectable features and for receiving customer desires (Henson: col. 4, lines 60-62 and col. 6, lines 18-21, Henson teaches an enhanced online store user interface, which advantageously enables the system configuration, pricing, and ordering of a computer system via the Internet. A customer of the online store can build a customer configured machine by selecting form options listed on the configuration screen.); and
- a supplier system coupled to the configuration engine using the Internet, the supplier system being associated with the supplier and being configured for providing an automated real-time response including at least one of availability information and price information to at least one of the user interface, the configuration engine, and the inventory library, wherein the supplier is independent from the seller, wherein the providing of the automated real-time response occurs during a configuration with the customer (Henson: Figure 1, col. 4, lines 53-62, col. 5, line 55 through to col. 6, line 67, and col. 7, lines 57-61, Henson teaches an enhanced online store user interface which enables the system configuration, pricing, and ordering of a computer system via the Internet. The configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. An on-line store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested. Online shoppers can click on the warning icon and receive a manually maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery. The indicator may further include an indication of a certain amount of time for a delay with an estimated time to delivery. Validation (or compatibility) provides the customer with a validation message indicating an occurrence of when the options selected for a particular system are not correct. Kennedy: p. 4, lines 14-35, p. 5, lines 10-12 and 20-22, p. 6, lines 2-13, p. 7, line 25 to p. 8, line 20, Kennedy

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teaches the requesting facilities and the supplying facilities may be coupled by a computer network with at least one seller model representing a seller that is selling at least one product, the seller model operable to forecast for the at least one product and operable to choose commitment levels creating forecast requests; the forecast requests receiving promises made by supplier sites; and the promises available to the seller entity to promise to actual customer requests. A list of all matching products and associated available-to-promises can be displayed as available-to-promise for the request. The managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network. In environments where customers are not willing to wait for a plan to be developed to get a promise, the supplying facility must create promises in advance that are available for immediate transfer to a customer. When an actual customer request is received, one or more (or portions of) promises made to forecast requests may be instantly reassigned to the customer request. Each sales entity defines the "products" it sells, where a product is an item priced based on the item, the quantity, the order lead time (time from accepting the order to the requested due date), and the customer. In this way, promises can be allocated for requests with particular characteristics. For example, one product may sell an item for \$5 if the order lead time is greater than 6 weeks. Another product may sell the same item for \$10 but with as short as 1 week lead time. Thus, a customer request with 6 week order lead time may be received when all allocations for that product have been consumed. However, if all the allocations for the 1 week order lead time product have not been consumed, the customer can be given the option. Such auto-maintenance of forecast requests can be very valuable in maintaining accurate forecasts and allocations for

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hundreds or thousands of products.) Kennedy teaches a supply chain network, where the upstream supply chain constitutes a number of sites that are independent from the seller. Henson teaches where the configuration occurs with the customer shopping online, where selections regarding product configuration and delivery dates can be made (See Figures 5 and 9). Kennedy teaches where real-time (i.e. instant) responses can be made back to the customer (page 6 line 11-13). Henson's system being online means that responses to the customer are provided in real-time, since the web-based configuration is on the internet (i.e. a network).

- **[Claim 126]** wherein the user interface, configuration engine, and supplier system are remotely located with respect to each other (Henson: col. 2, lines 61-65, Henson teaches a web-based online store having a user interface for enabling a custom configuration of a computer system. Kennedy: p. 7, lines 18-20, Kennedy teaches an entire distributed organization of suppliers and customers can be modeled along with the requests and promises placed between them.).
- **[Claim 131]** wherein the configuration engine is configured for validating a number of constraints associated with the selected feature, the constraints relating to compatibility between the selected feature and other features of the product or availability of the product including the selected feature (Henson: col. 8, lines 59-61, Henson teaches where validation provides for validating a number of constraints with the selected feature by determining what options work well together. See also Figure 3c #84. This can be provided through highlighting options that require a check (in this case the user has to manually determine it themselves, with the possible conflict flagged). Or the system can disable selection of subsequent sections by the user because the other features are incompatible with the selected feature.
- **[Claim 133]** wherein the availability data received from the manufacturer system over the network is provided to or by a supply chain planning system (SCP). (Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites (including availability data) is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information,

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which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system (i.e. a supply chain planning system) may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.

Claims 86-87, 91-92, 96, 99, 103, 107, and 118 substantially recite the same limitations as that of claims 50-52, 55-56, 60 and 98 with the distinction of the recited method being a method and a system. Hence the same rejection for claims 50-52, 55-56, 60 and 98 as applied above applies to claims 86-87, 91-92, 96, 99, 103, 107, and 118.

15. **Claims 39-40, 52-54, 57-59, 62, 64-65, 67, 75, 88-90, 93-95, 100-102, 114-117, 120-122, 124 and 127-130, 132** are rejected under 35 U.S.C. 103(a) as being unpatentable over Henson (U.S. Patent 6,167,383) and Kennedy (UK Patent Application GB 2,302,427 A) in view of Conklin et al. (U.S. Patent 6,141,653). Henson and Kennedy disclose extended product configuration techniques comprising:

- **[Claim 39]** receiving a feature selection from the customer at a seller (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches an online store application and system which includes a configuration module. The web-based online store has a user interface (i.e. from the customer buying a Dell PC) for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input.);
- updating an inventory library based upon the received selection to reflect constraints imposed by the received feature selection, the constraints relating to a technical feature limitation, a price limitation or

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availability of the configurable product (Henson: col. 5, line 55 through to col. 6, line 67 , Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. An on-line store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested. Online shoppers can click on the warning icon and receive a manually maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery.);

- providing the received selection to a supplier system during a configuration of the product with the customer, wherein the supplier system is associated with a supplier of the selected feature, wherein the supplier is independent from the seller (Kennedy: p. 4, lines 17-35, Kennedy teaches at least one seller model representing a seller that is selling at least one product, the seller model operable to forecast for the at least one product and operable to choose commitment levels creating forecast requests; the forecast requests receiving promises made by supplier sites through systems; and the promises available to the seller entity to promise to actual customer requests.) Kennedy teaches a distributed supply chain (i.e. of different suppliers and manufacturers that are independent of the seller). Henson teaches a customer providing a selection to a system during configuration of the product (Figure 5 provides for the receipt of customer selections providing during configuration of the product);
- receiving real-time information from the supplier system comprising at least one of availability date and price for the received selection, the information being received by the customer during the configuration. (Henson: col. 6, lines 18-67, Henson teaches the pricing option module includes an update price function that causes the price displayed on the configuration screen to reflect any changes made to the system options. This information is received by the customer during configuration. A shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. Online shoppers can click on a long lead-time icon that is displayed adjacent to each item affected

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and receive and estimated time to delivery. Kennedy: p. 4, lines 17-35, Kennedy teaches at least one seller model representing a seller that is selling at least one product, the seller model operable to forecast for the at least one product and operable to choose commitment levels creating forecast requests; the forecast requests receiving promises make by supplier sites (Kennedy's sites are connected electronically via a system); and the promises available to the seller entity to promise to actual customer requests. Kennedy teaches where responses are instant (i.e. real time));

- updating at least one of a manufacturing bill of materials, a pricing bill of materials, and a configuration bill of materials based on the received selection (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the in-process configuration or configuration bill of material is updated.).
- **[Claim 40]** receiving a feature selection from the customer at a seller, the seller being a seller of the configurable product to the customer (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches an online store application and system which includes a configuration module. The web-based online store has a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input (i.e. from the customer).);
- updating an inventory library based upon the received selection to reflect constraints imposed by the selection and relating compatibility among features of the configurable product (Henson: col. 5, line 55 through to col. 6, line 67, and col. 7, lines 57-61, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. An on-line store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon and associated messaging are made present in the configurator once an

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update/refresh of the web page has been requested. Online shoppers can click on the warning icon and receive a manually maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery. Validation (or compatibility) provides the customer with a validation message indicating an occurrence of when the options selected for a particular system are not correct.);

- providing the received selection to a supplier of inventory to the seller during a configuration of the product with the customer, wherein the supplier is independent from the seller (Kennedy: p. 4, lines 17-35, Kennedy teaches at least one seller model representing a seller that is selling at least one product, the seller model operable to forecast for the at least one product and operable to choose commitment levels creating forecast requests; the forecast requests receiving promises made by supplier sites; and the promises available to the seller entity to promise to actual customer requests. Kennedy teaches as discussed above, a distributed supply chain where the various manufacturing/supplier nodes in the supply chain are distinct from each other and from the seller.) Henson teaches the customer configuring the product to provide a received selection upon checkout, i.e. to finalize their order and purchase the item (see figure 6);
- receiving real-time information from the supplier, the information comprising a plurality of availability dates and a plurality of prices for the received selection, the information received by the customer during the selection (Henson: col. 6, lines 18-67, Henson teaches the pricing option module includes an update price function that causes the price displayed on the configuration screen to reflect any changes made to the system options. A shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. Online shoppers can click on a long lead-time icon that is displayed adjacent to each item affected and receive an estimated time to delivery. Henson teaches this information is received by the customer during the configuration. Kennedy: p. 4, lines 14-35, p. 5, lines 10-12 and 20-22, p. 6, lines 2-13, and p. 8, lines 18-20, Kennedy teaches the requesting facilities and the supplying facilities may be coupled by a computer network with at least one seller model representing a seller that is selling at least one product, the seller model operable to forecast for the at least one product and operable to choose commitment levels creating forecast requests; the forecast requests receiving promises made by supplier sites; and the promises available to the seller entity to promise to actual customer requests. A list of all matching products and associated available-to-promises can be displayed as available-to-

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promise for the request. In environments where customers are not willing to wait for a plan to be developed to get a promise, the supplying facility must create promises in advance that are available for immediate transfer to a customer. When an actual customer request is received, one or more (or portions of) promises made to forecast requests may be instantly reassigned to the customer request. Such auto-maintenance of forecast requests can be very valuable in maintaining accurate forecasts and allocations for hundreds or thousands of products. Kennedy teaches, as discussed above, providing information instantly, when a customer places an order, i.e. makes a selection);

- updating at least one of a manufacturing bill of materials, a pricing bill of materials, and a configuration bill of materials based on the received selection (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the in-process configuration or configuration bill of material is updated.).

Henson and Kennedy fail to teach that where customer desires are not satisfied, providing to the supplier at least one of a customer desired availability date and a customer desired price for the received selection; receiving an indication from the customer indicating the customer is not satisfied with the availability date or price; providing to the customer accommodation data from the supplier system, the accommodation data responsive to at least one of the customer desired availability date and the customer desired price for the selection; and wherein the customer desires comprise either at least one of a plurality of availability dates or at least one of a plurality of prices for the selected feature; wherein the accommodation data includes a second availability data or a second price. Conklin et al. teaches a multivariate negotiation engine for iterative bargaining.

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The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price. An internal database contains the history of all transactions, so that sponsors, buyers, and sellers may retrieve appropriate records to document each stage of interaction and negotiation (col. 13, line 66 through to col. 14, line 31). The examiner interprets “iterative” in this application to mean repeating the process in which a plurality of availability dates and/or a plurality of prices are displayed over a period of time and recorded until the process is complete. It is old and well known in the negotiation art to negotiate both price and delivery of product concurrently. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include a multivariate negotiation engine with Henson and Kennedy since Kennedy teaches the customer may be able to choose to have it for a low price but a week later than requested, or by the date requested but 10% higher price. (p. 17, lines 19-21). Companies realize the cost advantage of doing business over the Internet. Allowing the customer to negotiate price, terms, conditions, etc. over the Internet would minimize the need for the customer to physically go to a company's place of business. The customer having the ability to negotiate all aspects of doing business with the company over the Internet would reduce the overall cost of the transaction for both the customer and company.

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- **[Claim 52]** in response to the received availability date being unsatisfactory to the customer, communicating a customer specified availability date to at least one of the configuration engine or manufacturer engine (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price. The examiner interprets terms to include availability date.). As noted above, Henson teaches a configuration engine.
- **[Claim 53]** wherein the availability date received from the manufacturer system is in response to a customer specified availability date communicated to at least one of the configuration engine or manufacturer engine (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price. The examiner interprets terms to include availability date.). As noted above, Henson teaches a configuration engine.
- **[Claim 54]** wherein the availability date received from the manufacturer is in response to a customer specified price communicated to at least one of the configuration engine or manufacturer engine (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price. The examiner interprets terms to include availability date.). As noted above, Henson teaches a configuration engine.
- **[Claim 57]** in response to the received price being unsatisfactory to the customer, communicating a customer specified price to at least one of the configuration engine or manufacturer engine (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate

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negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price.). As noted above, Henson teaches a configuration engine.

- **[Claim 58]** wherein the price received is in response to a customer specified availability date communicated to at least one of the configuration engine or manufacturer engine (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price. The examiner interprets the terms and condition to include availability date.). As noted above, Henson teaches a configuration engine.
- **[Claim 59]** wherein the price received is in response to a customer specified price communicated to at least one of the configuration engine or manufacturer engine (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price.). As noted above, Henson teaches a configuration engine.
- **[Claim 62]** wherein the pricing bill of materials is derived from the configuration bill of materials (Henson: Figure 1, col. 4, line 53 through to col. 5, line 5, col. 6, lines 55-65, Henson teaches the entire configurator is driven by the database. The configurator includes a pricing module. The examiner interprets that once a customer selects or configures their system the pricing module then established a price for the selected feature, therefore the pricing bill of material is derived from the configuration bill of material.).
- **[Claim 64]** the step of updating at least one of a manufacturing bill of materials, a pricing bill of materials, and a configuration bill of materials is based upon the accommodation data from the supplier system

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(Henson: col. 5, line 55 through to col. 6, line 67, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. An on-line store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested. Online shoppers can click on the warning icon and receive a manually maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery. Kennedy: p. 7, lines 17-23, Kennedy teaches an entire distributed organization of suppliers and customers can be modeled along with the request and promises placed between them. In this way, planners can view, manage, and plan the activity of a whole network where the interfaces between elements must be formal (separate organizations)). Kennedy teaches a system where responses can be instantly communicated back to customers.

- **[Claim 75]** the received feature price is responsive to a customer specified availability date communicated to the seller and to the supplier system (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price.). Kennedy: p. 7, lines 17-23, Kennedy teaches an entire distributed organization of suppliers and customers can be modeled along with the request and promises placed between them. In this way, planners can view, manage, and plan the activity of a whole network where the interfaces between elements must be formal (separate organizations)). Kennedy teaches a system where responses can be instantly communicated back to customers.
- **[Claim 115]** receiving a selected product feature from a customer. Henson teaches receiving a selected product feature from a customer, as discussed above.

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- communicating over a network the selected feature to a supplier. Kennedy teaches an entire distributed organization of suppliers and customers can be modeled along with the request and promises placed between them. In this way, planners can view, manage, and plan the activity of a whole network where the interfaces between elements must be formal (separate organizations)).
- receiving from a supplier over the network an automated real-time response to the communicated selected feature including the availability date that corresponds to a product feature selected by the customer, the supplier being a supplier of the product feature to a seller and being independent of the seller, the customer being a customer of the seller, wherein the communicating and receiving is during a configuration of the product with the customer (Henson: col. 2, lines 61-67, col. 3, lines 61-67, col. 6, lines 5-17 and 31-43, and col. 7, lines 1-12, Henson teaches a web-based online store using a computer system with a central processing unit. The online store application and system includes a configuration module and a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input. A shipment delay indicator provides the customer with advance notice that a particular option will result in a shipment delay. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested, for example, through clicking on any of a number of store navigation or action buttons. Online shoppers can click on the warning icon and receive an estimated time to delivery. Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly and instantly (i.e. in real time) to the

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customers over a computer network. Henson teaches responses being received during communication with the customer including an availability date of the selected feature (Figure 9 #120). Kennedy: p. 7, lines 17-23, Kennedy teaches an entire distributed organization of suppliers and customers can be modeled along with the request and promises placed between them. In this way, planners can view, manage, and plan the activity of a whole network where the interfaces between elements must be formal (separate organizations)). Kennedy teaches where a response can be communicated instantly (i.e. in real time) back to the customer. Kennedy further teaches where the conversion of ATP orders against customer requests is done instantly (i.e. automatically and in real time).

- **[Claim 116]** updating a bill of material to reflect the accommodation received from the supplier (Henson: col. 2, lines 61-67, col. 3, lines 61-67, col. 5, line 55 through to col. 6, line 43, and col. 7, lines 1-12, Henson teaches a web-based online store using a computer system with a central processing unit. The online store application and system includes a configuration module and a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input. The configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. A shipment delay indicator provides the customer with advance notice that a particular option will result in a shipment delay. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested, for example, through clicking on any of a number of store navigation or action buttons. Online shoppers can click on the warning icon and receive an estimated time to delivery. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the in-process configuration or bill of material is updated.)
- **[Claim 117]** responsive to a customer selecting a feature of the product, receiving over a network at a seller an automated real-time response including an availability date that corresponds to the selected feature, the automated real-time response being from a manufacturer of the selected feature, the response received during the configuration of the product, wherein the manufacturer is independent of the seller (Henson: col. 2, lines 61-67, col. 3, lines 61-67, col. 6, lines 5-17 and 31-43, and col. 7, lines 1-12, Henson teaches a web-based online

store using a computer system with a central processing unit. The online store application and system includes a configuration module and a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input. A shipment delay indicator provides the customer with advance notice that a particular option will result in a shipment delay. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested, for example, through clicking on any of a number of store navigation or action buttons. Online shoppers can click on the warning icon and receive an estimated time to delivery. Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.); Kennedy teaches where a response can be communicated instantly (i.e. in real time) back to the customer. Kennedy further teaches where the conversion of ATP orders against customer requests is done instantly (i.e. automatically and in real time). Kennedy teaches as discussed above, a distributed supply chain where the various manufacturing/supplier nodes in the supply chain are distinct from each other and from the seller.) Henson teaches the customer configuring the product to provide a received selection upon checkout, i.e. to finalize their order and purchase the item (see figure 6)

- responsive to the received availability date being unsatisfactory to the customer, communicating a customer specified availability date to the manufacturer (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier

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to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a term and/or condition.)

- updating an in-process bill of materials to reflect the selected feature (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the in-process configuration or bill of material is updated.); and
- in response to the customer being satisfied with a set of sales parameters including the availability date of the selected feature, submitting a completed bill of materials to the manufacturer over the Internet (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Implicitly, when the customer finishes selection of the features and moves the selection to the shopping cart, the product configuration or bill of material is completed. Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders

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may be transmitted directly to the customers over a computer network.).

- **[Claim 120]** wherein the step of communicating a customer specified availability date to the manufacturer is followed by receiving from the manufacturer an automated real-time response including an accommodation in response to the customer specified availability date, wherein the response includes a different date or a different price (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – including the date and price. The examiner interprets terms to include availability date.).
- **[Claim 121]** receiving at a seller a feature selection by the customer (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches an online store application and system which includes a configuration module. The web-based online store has a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input.);
- updating an inventory library based upon the received selection to reflect constraints imposed by the received selection (Henson: col. 5, line 55 through to col. 6, line 67, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. An on-line store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested. Online shoppers can click on the warning icon and receive a manually maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery. The examiner interprets a shipping delay to be a constraint.);

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- providing the received selection to a supplier system during a configuration of the product with the customer, wherein the supplier system is associated with a supplier of the selected feature, wherein the supplier is independent of the seller, the supplier being a supplier of the feature to the seller (Henson: col. 4, lines 53-62 and col. 6, lines 31-67, Henson teaches an enhanced online store user interface which enables the system configuration, pricing, and ordering of a computer system via the Internet. Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.); Kennedy: p. 7, lines 17-23, Kennedy teaches an entire distributed organization of suppliers and customers can be modeled along with the request and promises placed between them. In this way, planners can view, manage, and plan the activity of a whole network where the interfaces between elements must be formal (separate organizations));
- receiving, at a seller, real-time information from the supplier system comprising at least one of availability date and price for the received selection, the information being received by the customer from the seller during the configuration (Henson: col. 6, lines 18-67, Henson teaches the pricing option module includes an update price function that causes the price displayed on the configuration screen to reflect any changes made to the system options. A shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. Online shoppers can click on a long lead time icon that is displayed adjacent to each item affected and receive and estimated time to delivery. This information is received by the customer from the seller

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during the online configuration); Kennedy: p. 7, lines 17-23, Kennedy teaches an entire distributed organization of suppliers and customers can be modeled along with the request and promises placed between them. In this way, planners can view, manage, and plan the activity of a whole network where the interfaces between elements must be formal (separate organizations). Kennedy teaches where responses can be made to the customer instantly (i.e. in real time).

- Wherein when an indication is received from the customer desires indicating the customer is not satisfied with the availability date or price, providing to the supplier system at least one of a customer - specified availability date and price for the received selection (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a term and/or condition.);
- displaying accommodation data from the supplier corresponding to the at least one of a customer-specified availability date and price (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a term and/or condition.); and
- updating at least one of a manufacturing bill of materials, a pricing bill of materials, and a configuration bill of materials based on the selection (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the in-process configuration or configuration bill of material is updated.);
- **[Claim 128]** providing from a seller to a customer a selectable feature and at least one of price and availability date of the selectable feature (Henson: col. 2, lines 61-67, and col. 6, lines 18-67, Henson teaches an online store application and system which includes a configuration

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module. The web-based online store has a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input. A pricing option module includes an update price function that causes the price displayed on the configuration screen to reflect any changes made to the system options. A shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. Online shoppers can click on a long lead time icon that is displayed adjacent to each item affected and receive and estimated time to delivery.);

- conveying to the supplier at least one of a customer desired availability date and a customer desired price, the conveying being during a configuration of the product with the customer, wherein the supplier is independent from the seller (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a term and/or condition.); Henson teaches conveying information resulting from a customer online configuration back to the customer indicating availability date and price. Kennedy teaches a distributed supply chain, as discussed above, wherein the distributed entities comprise a supply chain of entities, including where the suppliers are independent from the sellers.
- supplying an automated real-time response to a seller from the supplier, the automated response including an accommodation from the supplier based on the at least one of a customer desired availability date and a customer desired price, the response being received during the configuration with the customer, wherein the accommodation data includes a second availability date or a second price (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a term and/or condition.). Kennedy teaches real-time responses to customer orders down the supply chain, including to a seller from the supplier, so that the collaborative supply chain provides instant updates so that the production schedules maintained throughout the supply chain are instantly updated (i.e. in real time). As

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discussed above, Henson teaches providing responses to the customer regarding feature selection, availability and price during the configuration with the customer.

- **[Claim 129]** the customer is chosen from a set consisting of a retailer, wholesaler, manufacturer and distributor, of the product (Henson: col. 13, line 6-28, Henson teaches a personal and business customer where a business online store is created. The examiner interprets a business to any one of a retailer, wholesaler, manufacturer, or distributor.).
- **Claim 130]** the supplier is chosen from a set consisting of a retailer, wholesaler, manufacturer, distributor and vendor, of the product (Kennedy: p. 5, lines 15-17, and p. 7, lines 17-20, Kennedy teaches an entire distributed organization of suppliers and customers can be modeled along with the requests and promises placed between them. The distributed organization comprises at least one supplying facility such as a factory. The Examiner interprets factory to be a manufacturer.)
- **Claim 132]** in response to the availability date being unsatisfactory to the customer, communicating over the network a customer specified availability date to the supplier (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a term and/or condition.); and
- receiving from the supplier over the network an automated response including an accommodation based on the customer specified availability date (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a term and/or condition. Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 13, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent sites having capacity and that manage material flow; and seller models

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that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network. Where customers are not willing to wait for a plan to be developed to get a promise, the supplying facility must create promises in advance that are available for immediate transfer to a customer. The Examiner interprets immediate to imply automatic.).

Claims 65, 67, 88-90, 93-95, 100-102, 114, 122, 124 and 127 recite substantially the same limitations as that of claims 52-54, 57-59, 62, 64 and 117 with the distinction of the recited method being a method and a system. Hence the same rejection for claims 52-54, 57-59, 62 and 64 as applied above applies to claims 65, 67, 88-90, 93-95, 100-102, 122 and 124.

15. **Claims 61, 63, 66, 97, 108, and 123** are rejected under 35 U.S.C. 103(a) as being unpatentable over Henson (U.S. Patent 6,167,383), Kennedy (UK Patent Application GB 2,302,427 A) and Conklin et al. (U.S. Patent 6,141,653) in view of Teresko et al. (Teresko et al.. Calico Technology : Concinity Configuration/Quotation System, Industry Week, Vol. 245, Issue 23, 16 December 1996 [PROQUEST]). Henson, Kennedy and Conklin et al. disclose extended product configuration techniques comprising:

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- **[Claim 123]** receiving at a seller a feature selection by the customer (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches an online store application and system which includes a configuration module. The web-based online store has a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input.);
- updating an inventory library based upon the received selection to reflect constraints imposed by the received selection (Henson: col. 5, line 55 through to col. 6, line 67, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. An on-line store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested. Online shoppers can click on the warning icon and receive a manually maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery. The examiner interprets a shipping delay to be a constraint.);
- providing the received selection to a supplier system, the providing being during a configuration of the product with the customer, wherein the supplier system is associated with a supplier of the selected feature, wherein the supplier is independent from the seller, the supplier being a supplier of the feature to the seller (Henson: col. 4, lines 53-62 and col. 6, lines 31-67, Henson teaches an enhanced online store user interface which enables the system configuration, pricing, and ordering of a computer system via the Internet. Henson's system provides a customer with the ability to configure a product with respect to feature and date availability and receive online responses from the system during the configuration. Kennedy: p. 4, lines 17-35 and p. 5, line 23 to p. 6, line 4, Kennedy teaches the managing of a supply chain model represents a chain of supply, the supply chain model comprising: site models that represent independent sites having capacity and that manage material flow; and seller models that represents sellers and that manage forecasting and purchasing; wherein commitments between sites is modeled by requests and promises; and wherein the seller can post requests on behalf of sites in

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anticipation of future requests from the sites. The requesting facilities each store forecast orders in a memory of a computer at the requesting facility. The forecast orders include request information, which includes the quantity (or range of quantities) of product requests from the supplying facility and the date (or range of dates) it is needed. A master scheduling software system may be used to selectively plan use of, for example, manufacturing capacity or the supplying facility to meet selected forecast orders based on predetermined criteria. If a feasible and desirable plan can be devised that satisfies the request, then the supplier may make a promise to the customer that he supplier will satisfy the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network.);

- receiving at a seller real-time information from the supplier system comprising at least one of availability date and price for the received selection, the information being received by the customer from the seller during the configuration (Henson: col. 6, lines 18-67, Henson teaches the pricing option module includes an update price function that causes the price displayed on the configuration screen to reflect any changes made to the system options. A shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. Online shoppers can click on a long lead time icon that is displayed adjacent to each item affected and receive and estimated time to delivery.); Kennedy teaches a real time response to customer orders where a response is instantly conveyed back to the customer.
- Wherein when an indication is received from the customer indicating the customer is not satisfied with the availability date or price, providing to the customer at least one of a customer-specified availability date and a customer desired price for the received selection (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a term and/or condition.);
- displaying accommodation data from the supplier corresponding to the at least one of a customer-specified availability date and price (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate

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supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a term and/or condition.); and

- updating at least one of a manufacturing bill of materials, a pricing bill of materials, and a configuration bill of materials based on the selection (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the in-process configuration or configuration bill of material is updated.).

Henson, Kennedy and Conklin et al. fail to teach wherein the pricing bill of material is derived from the manufacturing bill of materials. Teresko et al. teach Calico Technology's introduction in early 1996 of Release 7.7 of its highly sophisticated sales quotation and configuration software enables manufacturers to extend their enterprise-resource-planning (ERP) systems out to the Internet. More than a mere "product selector", the Calico software enables customers to browse a vendor's options, configure their selection, and buy complex products or services online without a sales representative. The Calico software integrates with ERP systems and automatically translates bills of materials into constraint and rule-based models that can rapidly be deployed on the Internet by companies with rapidly changing product lines. It eliminates the need for sales and manufacturing to maintain separate configurations systems (p. 24 and 26). The Examiner interprets the manufacturing bill of material, i.e. in the ERP system, is used to sell product to the customers, i.e. price, therefore the pricing bill of material is derived from the manufacturing bill of materials. It would have

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been obvious to one of ordinary skill in the art at the time of the applicant's invention to include Calico's sales quotation and configuration software with the teachings of Henson, Kennedy and Conklin et al. since Henson teaches a web-based online store that includes a configurator (Abstract). Customers want more responsiveness and immediate responses to product or service requests. Kennedy teaches managing available-to-promise where making promises to fulfill customer requests includes a supply chain model; such that a list of all matching products and associated available promises can be displayed as available-to-promise for the request. The promises to meet the selected forecast orders may be transmitted directly to the customers over a computer network. (Abstract, p. 5, lines 10-12. p. 6, lines 2-4). Henson teaches the online store is optimized for responsiveness (availability and speed) to customer requests and for completeness in servicing of customer demands for personal computer information (col. 3, lines 51-54). Teresko et al. teach extended their enterprise-resource-planning (ERP) systems out to the Internet. Concinity provides "a truly interactive user experience where every click of the mouse gets instant, click-by-click feedback" (p. 24 and 26). Therefore there is motivation to combine since the references are configuring product online and using a supply chain planning system to be more responsiveness to customer requests with immediate product or service responses; and there is a reasonable expectation of success. All the claim limitations of the claim are taught by the combined references.

- **[Claim 61]** in response to the price of the selected feature being determined on the configuration side, deriving an in-process pricing bill of materials from the in-process bill of materials, wherein the in-

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process pricing bill of materials reflects the price of the selected feature (Henson: col. 2, lines 61-67, and col. 6, lines 18-67, Henson teaches an online store application and system which includes a configuration module. The web-based online store has a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input. The pricing option module includes an update price function that causes the price displayed on the configuration screen to reflect any changes made to the system options. A shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. Online shoppers can click on a long lead time icon that is displayed adjacent to each item affected and receive an estimated time to delivery. Teresko et al.: p. 24 and 26, Teresko et al. teach Calico Technology's introduction in early 1996 of Release 7.7 of its highly sophisticated sales quotation and configuration software enables manufacturers to extend their enterprise-resource-planning (ERP) systems out to the Internet. More than a mere "product selector", the Calico software enables customers to browse a vendor's options, configure their selection, and buy complex products or services online without a sales representative. The Calico software integrates with ERP systems and automatically translates bills of materials into constraint and rule-based models that can rapidly be deployed on the Internet by companies with rapidly changing product lines. It eliminates the need for sales and manufacturing to maintain separate configurations systems. The Examiner interprets that "in-process" means that the customer is in the process of selecting product features, but is not finished and that the quotation system gives prices for the product with the selected features. The constraint and rule-based bills of materials and sales and manufacturing using the same configurator means the in-process bill of materials reflect the price since the same configurator is being used to sell the product.); and

- in response to the price of the selected feature being determined on the resource planning side, deriving the in-process pricing bill of materials from an in-process manufacturing bill of materials that is derived from the in-process bill of materials and reflects the received availability date of the selected feature (Henson: col. 2, lines 61-67, and col. 6, lines 18-67, Henson teaches an online store application and system which includes a configuration module. The web-based online store has a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input. The pricing option module includes an update price function that causes the price displayed on the configuration screen to reflect any changes made to the system options. A shipment

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delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. Online shoppers can click on a long lead time icon that is displayed adjacent to each item affected and receive an estimated time to delivery. Teresko et al.: p. 24 and 26, Teresko et al. teach Calico Technology's introduction in early 1996 of Release 7.7 of its highly sophisticated sales quotation and configuration software enables manufacturers to extend their enterprise-resource-planning (ERP) systems out to the Internet. More than a mere "product selector", the Calico software enables customers to browse a vendor's options, configure their selection, and buy complex products or services online without a sales representative. The Calico software integrates with ERP systems and automatically translates bills of materials into constraint and rule-based models that can rapidly be deployed on the Internet by companies with rapidly changing product lines. It eliminates the need for sales and manufacturing to maintain separate configurations systems. The Examiner interprets that "in-process" means that the customer is in the process of selecting product features, but is not finished and that the quotation system gives prices for the product with the selected features. The constraint and rule-based bills of materials and sales and manufacturing using the same configurator means the in-process bill of materials reflect the price since the same configurator is being used to sell the product as is being used in the ERP system by manufacturing.).

- **[Claim 63]** the pricing bill of materials is derived from the manufacturing bill of materials (Teresko et al.: p. 24 and 26, Teresko et al. teach Calico Technology's introduction in early 1996 of Release 7.7 of its highly sophisticated sales quotation and configuration software enables manufacturers to extend their enterprise-resource-planning (ERP) systems out to the Internet. More than a mere "product selector", the Calico software enables customers to browse a vendor's options, configure their selection, and buy complex products or services online without a sales representative. The Calico software integrates with ERP systems and automatically translates bills of materials into constraint and rule-based models that can rapidly be deployed on the Internet by companies with rapidly changing product lines. It eliminates the need for sales and manufacturing to maintain separate configurations systems. The Examiner interprets that the quotation system gives prices for the product with the selected features. The constraint and rule-based bills of materials and sales and manufacturing using the same configurator means the manufacturing bill of materials is being used to sell the product, therefore the price is derived from the manufacturing bill of materials.).

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Claims 66, 97 and 108 substantially recite the same limitations as that of claims 61 and 63 with the distinction of the recited method being another method and system. Hence the same rejection for claims 61 and 63 as applied above applies to claims 66, 97 and 108.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Goss US 6236901 discloses a manufacturing system that supports a build to order customer order entry environment.

Fukushima JP 2002324183 A discloses a BOM parts configurator.

Kalakota, Ravi, "Inter-Enterprise Fusion: The Future of Supply Chains", May 2000, eAI Journal, pp.72-76.

Hill, Sidney, Jr.; "How Fast is Your Business", Aug 1999, Manufacturing Systems, 17, 8, ABI/INFORM Global. pp.i-vi.

Orr, Alicia, "On Track at Club-Mac", May 1999, Target Marketing, v22n5, pp.82-83, Dialog 01831477 04-82468.

Olenick, Doug, "Compaq Configurator Is So Clear, Even a Novice Can – Online BTO Operation Works", Nov 16, 1998, Computer Retail Week, p.57(1). Dialog 05955951 53223439.

Bourke, Richard; Kempfer, Lisa; "Achieving Success with Mass Customization: The vital contribution of Engineering", Oct 1999, Computer-aided Engineering, v18n10, pp.42-52, Dialog 01908399 05-59391.

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Marion, Larry; Kay, Emily; "Customer of One: The next market paradigm", Nov 1997, Software magazine, 17, 13, ABI/INFORM Global, p.38.

Scott-Walton, Barry; "The Dynamic Assembly Line", May 15, 2000, Intelligent Enterprise, 3, 8, 10, Dialog 02415931 62791392.

Fliedner, Gene; Vokurka, Robert J; "Agility: Competitive Weapon of the 1990s and Beyond?", 3rd Qtr 1997, Production and Inventory Management, 38, 3, ABI/INFORM Global, p.19.

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Sterrett whose telephone number is 571-272-6881. The examiner can normally be reached on 8-6.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JGS 1-30-2006



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